

Claims:

1. In a system comprising a first fabric and a plurality of devices coupled to the first fabric by Fibre Channel connections, the devices otherwise being able to communicate through the first fabric, a method for logically organizing the devices comprising:

accessing a definition of a first configuration including at least one zone, each zone including at least one device as a member of the zone; and

responsive to the definition of the first configuration, restricting communications between the devices coupled to the first fabric.

2. The method of claim 1 wherein the first configuration is an effective one of a plurality of configurations.

3. The method of claim 1 further comprising:

storing the definition of the first configuration in a non-volatile medium; and
reinstating the first configuration after a loss of power to the first fabric.

4. The method of claim 1 wherein:

in the definition of the first configuration, at least one zone is characterized by a type of communication; and

the step of restricting communications includes restricting communications between devices which are member of said zone to said type of communication.

5. The method of claim 1 wherein, in the definition of the first configuration, at least one device is identified by a name which is independent of the device's location on the fabric.

6. The method of claim 5 wherein the name includes a Worldwide Port Name.

7. The method of claim 5 wherein the name includes a Worldwide Node Name.

8. The method of claim 1 wherein, in the definition of the first configuration, at least one device is identified by an Arbitrated Loop Physical Address.

9. The method of claim 1 wherein:

the step of accessing the definition of the first configuration includes:

storing the definition of the first configuration in the first fabric, and
the first fabric accessing the definition; and
the step of restricting communications between the devices includes, responsive to the definition of the first configuration, the first fabric restricting communications between the devices coupled to the first fabric.

10. The method of claim 1 wherein the first fabric comprises one or more interconnected fabric elements to which the devices are coupled, and wherein:
the step of accessing the definition of the first configuration includes:
storing the definition of the first configuration in each fabric element, and
each fabric element accessing the definition; and
the step of restricting communications between the devices includes, responsive to the definition of the first configuration, each fabric element restricting communications for the devices coupled to said fabric element.

11. The method of claim 10 further including:
responsive to a coupling of an additional fabric element to the first fabric,
determining whether any definition for any configuration is stored in said fabric element;
and
responsive to no definitions being stored in the additional fabric element, storing the definition of the first configuration in the additional fabric element.

12. The method of claim 1 wherein the first fabric comprises one or more interconnected fabric elements to which the devices are coupled, the method further comprising:
responsive to a coupling of an additional fabric element to the first fabric,
modifying the definition of the first configuration to account for the additional fabric element.

13. The method of claim 1 further comprising:
responsive to a merging of the first fabric with a second fabric, modifying the definition of the first configuration to account for the second fabric.

14. The method of claim 1 further comprising:
compiling the definition of the first configuration; and

wherein the step of restricting communications between the devices coupled to the first fabric is responsive to the compiled definition of the first configuration.

15. A fabric element for use in a system comprising a first fabric and a plurality of devices coupled to the first fabric by Fibre Channel connections, the devices otherwise being able to communicate through the first fabric, the fabric element comprising:

a plurality of ports, each port adapted to be coupled to a device by a Fibre Channel connection;

a storage medium for storing a definition of a first configuration including at least one zone, each zone including at least one device as a member of the zone; and

a logic device coupled to the plurality of ports and to the storage medium, for, responsive to the definition of the first configuration, restricting communications for devices coupled to the plurality of ports.

16. The fabric element of claim 15 wherein the storage medium includes a nonvolatile medium.

17. The fabric element of claim 15 further comprising:

a compiler coupled to the storage medium and to the logic device for compiling the definition of the first configuration for use by the logic device.

18. A computer readable medium containing software for logically organizing a plurality of devices coupled to a first fabric by Fibre Channel connections, the devices otherwise being able to communicate through the first fabric, the software for instructing a processor to perform the steps of:

accessing a definition of a first configuration including at least one zone, each zone including at least one device as a member of the zone; and

responsive to the definition of the first configuration, restricting communications between the devices coupled to the first fabric.

19. The computer readable medium of claim 18 wherein:

in the definition of the first configuration, at least one zone is characterized by a type of communication; and

the step of restricting communication includes restricting communications between devices which are member of said zone to said type of communication.

20. The computer readable medium of claim 18 wherein, in the definition of the first configuration, at least one device is identified by a name which is independent of the device's location on the fabric.

21. The computer readable medium of claim 18 wherein, in the definition of the first configuration, at least one device is identified by an Arbitrated Loop Physical Address.

22. The computer readable medium of claim 18 wherein the software is further for instructing the processor to perform the step of:
storing the definition of the first configuration.

23. The computer readable medium of claim 18 wherein the software is further for instructing the processor to perform the step of:
responsive to a merging of the first fabric with a second fabric, modifying the definition of the first configuration to account for the second fabric.

24. The computer readable medium of claim 18 wherein the software is further for instructing the processor to perform the step of:
compiling the definition of the first configuration; and
wherein the step of restricting communications between the devices coupled to the first fabric is responsive to the compiled definition of the first configuration.